435 & 535 Ground Glass & Field Lens Retainer
August 1, 2000

Summary

This note describes changes to the Field Lens and Ground Glass Retainers of the 435, 535 and 535B.

About Ground Glasses and Field Lenses

There are two glass pieces mounted above the mirror shutter of the 435, 535 and 535B: the ground glass and the field lens. The image from the taking lens is projected onto the matte surface of the ground glass. The field lens ensures that the image on the ground glass appears evenly illuminated when viewed through the viewfinder.

In older cameras (35 BL, 35-3, 35 IIB, 35 IIC) the ground glass and the field lens are made out of one piece of glass. In the new generation of 35 mm ARRI cameras (435, 535 and 535B) the ground glass and the field lens are two separate pieces of glass to allow the use of a fiber optics screen instead of a ground glass. If a fiber optics screen is used, a special field lens must also be used.

Shipping Cameras

If the camera case is subjected to extremely rough handling during shipping, i.e. dropped from some height onto a concrete surface while the camera was facing down, it is possible for the field lens or the ground glass to dislodge, and, in a worst case scenario, fall onto the mirror shutter. To prevent this there are retaining mechanisms for both the ground glass and the field lens on the 435, 535 and 535B. This Technical Note concerns changes to the design of these retaining mechanisms.

The Field Lens Retainer

A sliding door, the “Field Lens Retainer”, prevents the field lens from slipping out during shipping. Unfortunately, we have found that users sometimes forget to pull it all the way down, resulting in possible damage to the camera during shipping.

All 435 cameras from serial number 7328 on have been equipped with a new Field Lens Retaining system. A small tap secures the field lens which can only be removed by lifting it up and pulling it out. All earlier 435 cameras can be modified. This modification can also be done to the 535B, but cannot be done to the 535.

Please note that retrofitted cameras in the US keep the sliding door. Thus some cameras with the new system still have the sliding door, others may not.

The Ground Glass Retainer

As an additional precaution we offer a retrofit of the 435, 535, and 535B ground glass retainer springs. The new retainer springs provide stronger support and reduce the risk of the ground glass dislodging during shipping.

Checking After Shipping

It is always a good idea to check the ground glass and the field lens after shipping.

- Take the camera front cap off and look at the ground glass. Make sure it is pushed in all the way.
- Take the camera front cap off, slide the Field Lens Retainer up and look at the Field Lens. Make sure it is pushed in all the way. Slide the Field Lens Retainer back down.

After shipping, DO NOT RUN the camera until you have actually seen the ground glass seated properly. Opening the camera door and inching the movement is not a valid check on a 435, since the movement and the shutter are independent of each other and inching the movement will NOT move the shutter.

For more information on this issue, please contact your local ARRI representative.